

WHAT IS CLAIMED IS:

1. A pharmaceutical formulation for intranasal administration comprising morphine or pharmaceutically acceptable salt thereof at a pH from about 3.0 to about 7.0.

2. A pharmaceutical formulation according to Claim 1 comprising a therapeutically effective amount of morphine or pharmaceutically acceptable salt thereof for eliciting an analgesic or anesthetic response in a mammal.

3. A pharmaceutical formulation according to Claim 1, further comprising morphine or pharmaceutical acceptable salt thereof in combination with a nasal delivery system.

4. A pharmaceutical formulation according to Claim 3, wherein morphine or pharmaceutically acceptable salt thereof is dispersed in an aqueous or non-aqueous formulation.

5. A pharmaceutical formulation according to Claim 4, wherein morphine or pharmaceutically acceptable salt thereof is at a concentration below about 50% w/w.

6. A pharmaceutical formulation according to Claim 4, wherein morphine or pharmaceutically acceptable salt thereof is at a concentration below about 10% w/w.

7. A pharmaceutical formulation according to Claim 4, wherein morphine or pharmaceutically acceptable salt thereof is dispersed in suspensions, solutions, powders, gels, ointments and creams.

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8. A pharmaceutical formulation according to Claim 3, wherein the nasal delivery system comprises a buffer to maintain the pH of the morphine or pharmaceutically acceptable salt thereof, a thickening agent, a humectant, an absorption enhancer and combinations thereof.

9. A pharmaceutical formulation according to Claim 8 further comprising one or more pharmaceutical excipients.

10. A pharmaceutical formulation according to Claim 8 further comprising a preservative.

11. A pharmaceutical formulation according to Claim 8, wherein the buffer is selected from the group consisting of acetate, citrate, prolamine, carbonate, phosphate and combinations thereof.

12. A pharmaceutical formulation according to Claim 8, wherein the thickening agent is selected from the group consisting of methyl cellulose, xanthan gum, carboxymethyl cellulose, hydroxypropyl cellulose, carbomer, polyvinyl alcohol, alginates, acacia, chitosan and combinations thereof.

13. A pharmaceutical formulation according to Claim 8, wherein the humectant is selected from the group consisting of sorbitol, glycerol, mineral oil, vegetable oil and combinations thereof.

14. A pharmaceutical formulation according to Claim 8, wherein the absorption enhancer is selected from the group consisting of sodium lauryl sulfate, sodium salicylate, oleic acid, lecithin, dehydrated alcohol, Tween, Span, polyoxy 40 stearate, polyoxy ethylene 50 stearate, edetate disodium, propylene glycol, glycerol monooleate, fusieates, bile salts, octoxynol and combinations thereof.

15. A pharmaceutical formulation according to Claim 8, wherein the absorption enhancer is selected from the group of anionic, cationic and nonionic absorption enhancers and combinations thereof.

16. A method for eliciting an analgesic or anesthetic response in a mammal comprising nasally administering a therapeutically effective amount of morphine or pharmaceutically acceptable salt thereof at a pH from about 3.0 to about 7.0.

17. A method for eliciting an analgesic or anesthetic response in a mammal comprising nasally administering a therapeutically effective amount of morphine or pharmaceutically acceptable salt thereof at a pH from about 3.0 to about 7.0 to the mammal in combination with a nasal delivery system.

18. A method according to Claim 17, wherein the morphine or pharmaceutically acceptable salt thereof is dispersed in an aqueous or non-aqueous formulation.

19. A method according to Claim 18, wherein morphine or pharmaceutically acceptable salt thereof is at a concentration below about 50% w/w.

20. A method according to Claim 18, wherein morphine or pharmaceutically acceptable salt thereof is at a concentration below about 10% w/w.

21. A method according to Claim 18, wherein morphine or pharmaceutically acceptable salt thereof is dispersed in suspensions, solutions, powders, gels, ointments and creams.

22. A method according to Claim 17, wherein the nasal delivery system comprises a buffer to maintain the pH of the morphine or pharmaceutically acceptable salt thereof, a thickening agent, a humectant, an absorption enhancer and combinations thereof.

23. A method according to Claim 22 further comprising one or more pharmaceutical excipients.

24. A method according to Claim 22 further comprising a pharmaceutically acceptable preservative.

25. A method according to Claim 22, wherein the buffer is selected from the group consisting of acetate, citrate, prolamine, carbonate and phosphate and combinations thereof.

26. A method according to Claim 22, wherein the thickening agent is selected from the group consisting of methyl cellulose, xanthan gum, carboxymethyl cellulose, hydroxypropyl cellulose, carbomer, polyvinyl alcohol, alginates, acacia, chitosan and combinations thereof.

27. A method according to Claim 22, wherein the humectant is selected from the group consisting of sorbitol, glycerol, mineral oil, vegetable oil and combinations thereof.

28. A method according to Claim 22, wherein the absorption enhancer is selected from the group consisting of sodium lauryl sulfate, sodium salicylate, oleic acid, lecithin, dehydrated alcohol, Tween, Span, polyoxyl 40 stearate, polyoxyethylene 50 stearate, edetate disodium, propylene glycol, glycerol monooleate, fusieates, bile salts, octoxynol and combinations thereof.

29. A method according to Claim 22, wherein the absorption enhancer is selected from the group of anionic, cationic and nonionic surfactants and combinations thereof.

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